Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (Currently amended): A system for monitoring pulmonary artery pressure ~~one or more physiological parameters for treatment of pulmonary hypertension~~ within a patient, said system comprising:

a hermetic sensor package adapted to be implanted into and configured to block a pulmonary artery of a patient, said sensor package being formed from bonded layers of at least one of glass and silicon and containing at least one sensing device ~~One or more implantable sensing devices,~~ said sensing device comprising ~~of~~ at least one inductor coil and at least one sensor, with optional electronic components;

a readout device that is not adapted to be implanted in said pulmonary artery, ~~A non-implantable readout device,~~ said readout device comprising ~~of~~ at least one inductor coil having telemetric means for at least one of ~~allowing~~ electromagnetic telecommunication and electromagnetic

wireless powering of said sensing device through said at least one inductor coil of said sensing device.

Claim 2 (Currently amended): The method of claim 30, wherein the method is performed ~~system of claim 1 wherein said system is used~~ for diagnosis of pulmonary hypertension within a patient.

Claim 3 (Currently amended): The system of claim 1 wherein said ~~implantable~~ sensing device comprises of at least one capacitive sensor. ~~sensor~~

Claim 4 (Currently amended): The system of claim 1 wherein said ~~implantable~~ sensing device further comprises ~~includes~~ a battery.

Claim 5 (Currently amended): The system of claim 4 further comprising wireless means for recharging said battery. ~~wherein said battery is rechargeable using wireless means.~~

Claim 6 (Currently amended): The system of claim 1 wherein said

sensing device is adapted to monitor at least one additional physiological parameter within the pulmonary artery. ~~physiological parameters include pressure.~~

Claim 7 (Currently amended): The system of claim 1 wherein said sensor package is adapted to be implanted in said pulmonary artery to monitor ~~one or more sensing devices are measuring one or more of the following pressures:~~ pulmonary artery pressure. ~~, right ventricle, left ventricle, left atrium, right atrium, left atrium appendage, right atrium appendage, mean left atrium pressure, mean right atrium pressure, differential pressure between left and right atrium.~~

Claim 8 (Currently amended): The system of claim 7 wherein said system further comprises means for calculating changes in said pulmonary artery ~~calculates the change of~~ pressure over time, dp/dt.

Claim 9 (Currently amended): The system of claim 1 wherein said sensing device comprises at least one of resonant, passive, and active means for telecommunicating and/or telepowering with said readout device. ~~one or~~

~~more of the following schemes are used: resonant, passive, active.~~

Claim 10 (Currently amended): The system of claim 6 wherein said at least one additional ~~1 wherein the~~ physiologic parameter is chosen from the group consisting of ~~being measured is one or more of the following parameters:~~ pressure, temperature, flow, blood composition, blood gas content, chemical composition, chemical concentration, acceleration, impedance, and vibration.

Claims 11 and 12 (Canceled)

Claim 13 (Currently amended): The method of claim 30, wherein the method is part of at least one procedure chosen from the group consisting of ~~system of claim 1 wherein said system is used for one or more of the following applications:~~ early diagnosis of pulmonary hypertension and related conditions, early intervention in treatment of pulmonary hypertension and related conditions, remote monitoring of patients with pulmonary hypertension and related conditions, tailoring of medications, disease management, identification of complications from pulmonary hypertension related conditions,

identification of complications from pulmonary hypertension related conditions, treatment of complications from pulmonary hypertension related conditions, treatment of complications from pulmonary hypertension conditions, feedback regarding the impact of medication on the heart, tuning of pacemaker parameters, feedback regarding the impact of pacing changes on heart function, reduction in frequency and severity of hospitalizations due to pulmonary hypertension, reduction in frequency and severity of hospitalizations due to pulmonary hypertension, identification of mitral valve stenosis, and treatment of mitral valve stenosis. ~~stenosis including but not limited to surgery and balloon angioplasty.~~

Claim 14 (Currently amended): The system of claim 1 wherein said readout device comprises means for at least one of: ~~is capable of performing one or more of the following:~~ remote monitoring of patients with pulmonary hypertension ~~including but not limited to home monitoring,~~ monitoring of patients with pulmonary hypertension with telephone-based ~~(or similar method)~~ data and information delivery, monitoring of patients with pulmonary hypertension with wireless telephone-based ~~(or similar method)~~ data and information delivery, monitoring of patients with pulmonary hypertension with

web-based ~~(or similar method)~~ data and information delivery, closed-loop drug delivery to treat patients with pulmonary hypertension, closed-loop tuning of medical systems to treat pulmonary hypertension or pulmonary hypertension related conditions, warning of ~~warning systems for critical~~ worsening of pulmonary hypertension or pulmonary hypertension related conditions, portable or ambulatory monitoring or diagnosing, ~~diagnostic systems,~~ battery-operation capability, data storage, reporting global positioning coordinates for emergency applications, and communication with other medical devices. ~~devices including but not limited to pacemakers, defibrillator, implantable cardioverter defibrillator, implantable drug delivery systems, non-implantable drug delivery systems, and wireless medical management systems.~~

Claims 15 and 16 (Canceled)

Claim 17 (Currently amended): The method of claim 30, further comprising the step of placing said sensor package in said pulmonary artery ~~system of claim 1 wherein said implantable sensing device is implanted~~ using a surgical technique.

Claim 18 (Currently amended): The method of claim 30, further comprising the step of placing said sensor package ~~system of claim 1 wherein said implantable sensing device is implanted~~ using a minimally invasive outpatient technique.

Claim 19 (Currently amended): The method of claim 30, further comprising the step of placing said sensor package using a catheter delivery technique. ~~system of claim 1 wherein a catheter delivery method is used to implant said implantable sensing device.~~

Claim 20 (Currently amended): The system of claim 1, wherein said sensor package further comprises an anchoring mechanism. ~~implantable sensing device uses anchoring mechanisms including but not limited to those used in one or more of the following: septal occluder devices, left atrial appendage occluders, cardiac pacing leads, screws, tines, stents.~~

Claim 21 (Currently amended): The system of claim 20 wherein said anchoring mechanism comprises a diameter of said sensor package ~~utilizes an anchor that passes through a septum wall and opens on one or~~

~~both sides of a septal wall, clamping said implantable device to the wall.~~

Claims 22-27 (Canceled)

Claim 28 (Currently amended): The system of claim 1 wherein said sensor package further comprises at least one device chosen from the group consisting of ~~implantable sensing device is augmented with one or more actuators including but not limited to:~~ thermal generators, voltage sources, current sources, probes, electrodes, drug delivery pumps, valves, meters, microtools for localized surgical procedures, radiation emitting sources, defibrillators, muscle stimulators, and pacing stimulators.

Claim 29 (Canceled)

Claim 30 (Currently amended): A method of delivering said sensor package ~~The system~~ of claim 1 ~~wherein delivery of said implantable sensing device~~ comprising the step of injecting said sensor package so as to deliver said sensor package into a first ~~is accomplished via injection of said implantable sensing device into a large~~ pulmonary artery, wherein blood flow

through the first pulmonary artery delivers and anchors said sensor package ~~implantable sensing device~~ into a second ~~one or more~~ pulmonary artery with a smaller diameter than said first pulmonary artery.

Claim 31 (Currently amended): The method ~~system~~ of claim 30 further comprising ~~wherein~~ cell growth and encapsulation of said sensor package to stabilize said sensor package. ~~occurs over time, in order to further stabilization of said implantable sensing device.~~

Claim 32 (Currently amended): The system of claim 1 wherein at least a portion of said sensor package ~~implantable sensing device~~ is coated with one or more layers of ~~thin~~ coatings.

Claim 33 (Currently amended): The system of claim 32 wherein said one or more layers of coatings are formed from at least coating material chosen from the group consisting of ~~the coating materials include but are not limited to one or more or any combination thereof:~~ silicone, hydrogels, parylene, polymer, nitrides, oxides, nitric-oxide generating materials, carbides, silicides, titanium, and combinations thereof.